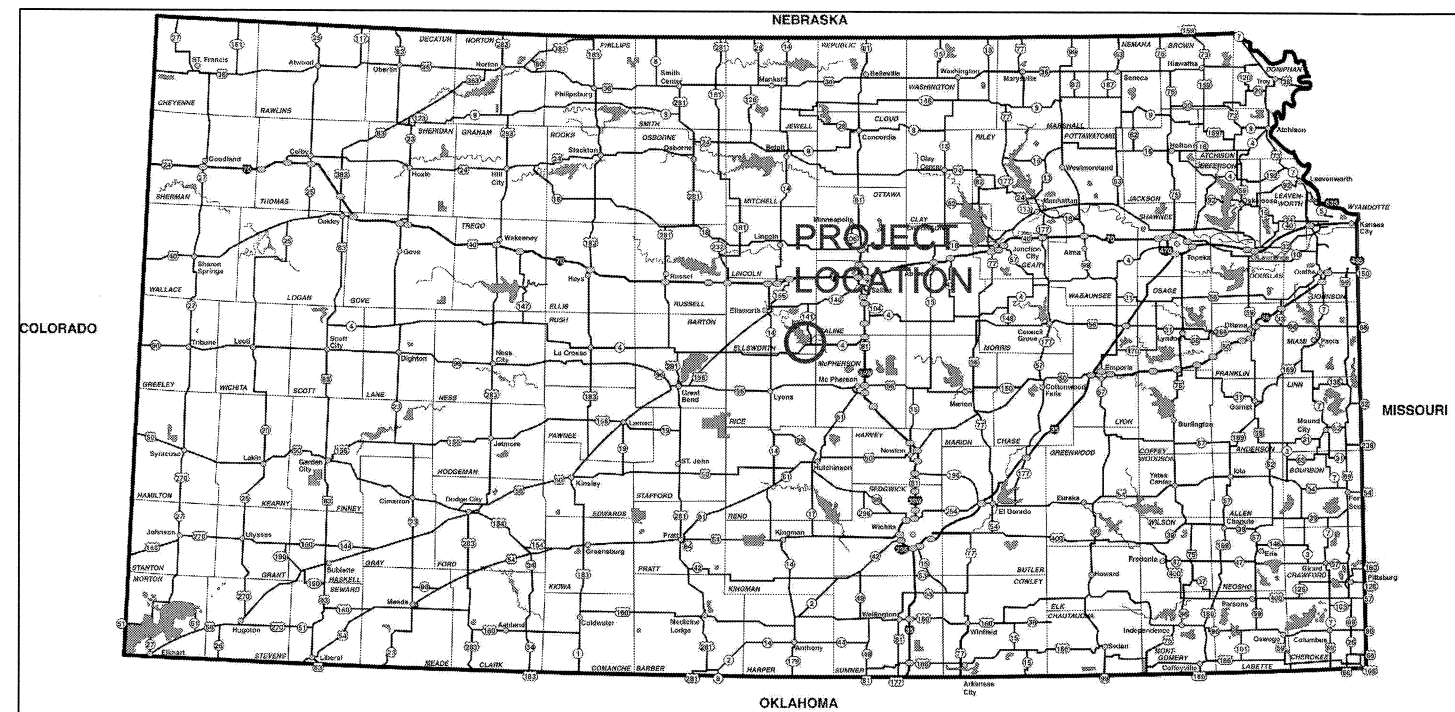


CONSTRUCT UTILITIES, SIDEWALK AND PARKING LOT FOR NEW
PRE-CAST FLUSH RESTROOM
2015



1. TITLE SHEET
2. SITE PLAN
3. SPECIFICATIONS - WATER, ELECTRICAL
4. SPECIFICATIONS - CONCRETE
5. ELECTRICAL DETAILS

12/11/2015

CHIEF, ENGINEERING SERVICES
KANSAS DEPARTMENT OF WILDLIFE, PARKS AND TOURISM

CONSTRUCT UTILITIES FOR NEW FLUSH RESTROOM
2015

**Kansas Department of Wildlife,
Parks and Tourism**
Engineering Services Section
512 SE 25th Ave.
Pratt, Kansas 67124

Project

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Project
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**Kansas Department of Wildlife,
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Engineering Services Section
512 SE 25th Ave.
Pratt, Kansas 67124

GENERAL NOTES

- 1) PROJECT IS LOCATED AT KANAPOLIS STATE PARK LANGLEY POINT AREA. LOCAL CONTACTS FOR THE PROJECT ARE JASON SUNDERLAND KANAPOLIS STATE PARK MANAGER AND RICK MARTIN REGIONAL SUPERVISOR PARKS 785-546-2565.
KDWPT ENGINEERING SERVICES CONTACT IS COLBY BUTLER (620) 672-0762.
- 2) CONTRACTOR SHALL CONSTRUCT A GRAVEL BASE UNDER THE PROPOSED BUILDING A MINIMUM OF 6" DEEP. FILL AND COMPACT USING CLEAN EVENLY GRADED $\frac{3}{4}$ " MINUS CRUSHED AGGREGATE COMPACTED TO 95% OF OPTIMUM DENSITY IN ACCORDANCE WITH ASTM D 1557. FINISHED SURFACE OF SUB-BASE SHALL BE UNIFORMLY LEVEL, NOT VARYING MORE THAN $\frac{1}{2}$ " FROM A TRUE HORIZONTAL PLANE.
- 3) CONSTRUCT ALL UTILITIES IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS
- 4) BUILDING INSTALLATION AND CONNECTION OF UTILITIES INSIDE BUILDING WILL BE PERFORMED BY THE BUILDING INSTALLER
- 5) UPON COMPLETION OF ALL WORK LEAVE THE AREA IN A CLEAN, AESTHETICALLY PLEASING CONDITION, REMOVE ALL CONSTRUCTION RELATED DEBRIS ON A DAILY BASIS.

WATER SERVICE NOTES

- 1) ALL NEW WATER LINE TO BE 1" DIAMETER MINIMUM AND SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS FOR POLY PIPE:
PE 4710, ASTM 3350, AWWA C901, NSF STANDARDS 14 AND 61
SDR 9 OR SDR 9.
- 2) COORDINATE ALL WORK ON THE PARK WATER SYSTEM WITH PARK STAFF.
EXPOSE EXISTING WATER LINE. ALL WATERLINE TO BE PLACED WITH A MINIMUM OF 36" OF COVER.
USE ONLY NATIVE BACKFILL MATERIAL THAT IS FREE FROM ROCKS OR OTHER DEBRIS.
- 3) TIE NEW WATER LINE TO EXISTING USING THE BEST AVAILABLE METHOD AND TO INSURE MAINTENANCE FREE INSTALLATION.
- 4) TERMINATE NEW WATER LINE WITHIN THE PLUMBING CHASE AREA FOR THE NEW BUILDING AND A MINIMUM OF 12" ABOVE THE PROPOSED FINISH FLOOR.
- 5) PROVIDE AND INSTALL A CLASS 250 BRONZE BALL VALVE AT THE TERMINATION OF THE NEW WATER SERVICE LINE.
- 6) THOROUGHLY COMPACT ALL TRENCHES AFTER BACKFILLING, LEAVE AREA IN A CLEAN AND AESTHETICALLY PLEASING CONDITION.

ELECTRICAL NOTES

- 1) ALL ELECTRICAL WORK SHALL BE PERFORMED BY LICENSED ELECTRICIANS AND SHALL COMPLY WITH 2008 NATIONAL ELECTRICAL CODE AND ALL APPLICABLE CODES AS ADOPTED BY THE STATE OF KANSAS FOR STATE PROJECTS.
- 2) ALL PERMIT AND INSPECTION FEES SHALL BE INCLUDED IN BID.
- 3) THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING BID. NO EXTRAS WILL BE PAID DUE TO UNANTICIPATED EXISTING CONDITIONS.
- 4) THE CONTRACTOR SHALL INCLUDE IN THE BID ALL COSTS OF TRENCHING, BACKFILL, AND ALL ITEMS TO PROVIDE FOR A COMPLETE PROJECT.
- 5) ALL EXISTING EQUIPMENT, DEVICES, FIXTURES, ETC. INDICATED ON THESE PLANS IS BASED ON INFORMATION GATHERED DURING FIELD OBSERVATIONS. CONTRACTOR SHALL VERIFY EXTENT OF EXISTING CONDITIONS PRIOR TO BIDDING.
- 6) THE PLANS ARE DIAGRAMMATIC. FIELD COORDINATE EXACT LOCATIONS AND ROUTINGS WITH EXISTING CONDITIONS. FINAL RESULT SHALL BE EQUIVALENT TO THAT INDICATED ON DRAWINGS.
- 7) MAINTAIN ALL CLEARANCES REQUIRED BY ELECTRICAL EQUIPMENT.
- 8) ALL BRANCH CIRCUITS OR FEEDERS SHALL BE INSTALLED WITH AN EQUIPMENT GROUNDING CONDUCTOR ROUTED WITH THEM.

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CONCRETE SPECIFICATIONS:

THE CONCRETE SHALL BE CONCRETE (GRADE 4.0)(AE) THAT CONSIST OF PORTLAND CEMENT, COARSE AGGREGATE, FINE AGREGATE AND WATER; PROPORTIONED AND MIXED TO PRODUCE A PLASTIC WORKABLE MIX SUITABLE FOR PLACEMENT IN SPECIFIED CONDITIONS. READY-MIXED CONCRETE MAY BE USED PROVIDED THE RESIDENT ENGINEER OR HIS REPRESENTATIVE IS PERMITTED FREE ACCESS TO THE MIXING PLANT. MIX DESIGN IS SUBJECT TO APPROVAL BY OWNERS REPRESENTATIVE.

THE CONCRETE WILL BE PROPORTIONED WITHIN THE FOLLOWING LIMITS: ALL MATERIALS BEING MEASURED BY WEIGHT, CONSIDERING A SACK OF CEMENT AS 94 POUNDS AND ONE GALLON OF WATER AT 8.33 POUNDS.

*CEMENT CONTENT, SACKS PER CUBIC YARD (MINIMUM)	6.5
MAXIMUM WATER-TO-CEMENT RATIO.....	0.49
MAXIMUM TOTAL WATER (GALLONS PER SACK OF CEMENT).....	5.5
SLUMP (INCHES).....	2"-4"
PERCENT OF ENTRAINED AIR BY VOLUME.....	6% +/- 2%
MAXIMUM AGGREGATE SIZE.....	¾"

*620 POUND (MIN.) IF MIXED AGGREGATE WITH 30% OR MORE (BY WT.) ON THE NO. 4 SEIVE

THE 28 DAY COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 4,000LB PSI MINIMUM

AD MIXTURES. ALL MATERIALS ARE SUBJECT TO APPROVAL BY KD WPT

STRIP, REMOVE AND STOCKPILE ALL TOPSOIL FROM THE AREA OF PROPOSED SIDEWALK AND PARKING LOT. FILL AREAS NECESSARY TO BRING THE SITE TO TOP OF SUB-GRADE. COMPACT ALL AREAS UNDER NEW SIDEWALK AND PARKING LOT TO KDOT TYPE B COMPACTION STANDARDS. DO NOT POUR CONCRETE ON FROZEN SUBGRADE. PROVIDE MOISTURE AND THERMAL PROTECTION FOR UP TO 72 HOURS.

SIDEWALK:
FORM AND POUR REINFORCED CONCRETE SIDEWALK IN LOCATION SHOWN, DOWEL SIDEWALK TO NEW CXT RESTROOM WITH #4 REBAR DOWELS EPOXIED INTO PLACE AT 1' CENTERS. DOWELS TO EXTEND A MINIMUM OF 9" BOTH WAYS. CONCRETE IS TO BE 4" THICK. ON ALL SIDES OF BUILDING WITH DOORS SIDEWALK IS TO BE 5' WIDE. ON REAR OF BUILDING IT IS TO 2.5' WIDE. SIDEWALK IS TO BE REINFORCED WITH 6X6-W4.0xW4.0 WELDED WIRE FABRIC IN CENTER OF SLAB.
THE WIRE MESH SHALL BE OVERLAPPED A MINIMUM OF THE SPACING BETWEEN WIRES (6"). #4 BAR SET 12" CENTERS BOTH WAYS CAN ALSO BE USED FOR REINFORCEMENT.

PARKING LOT:
FORM AND POUR REINFORCED CONCRETE PARKING LOT IN LOCATION SHOWN. CONCRETE IS TO BE A MINIMUM OF 6" THICK REINFORCED WITH #5 BARS WITH 12" CENTERS BOTH WAYS.

BACKFILL NEW CONCRETE WITH STOCKPILED SOILS. GRADE ALL AREAS TO DRAIN WHEN COMPLETE. LEAVE THE AREA IN A CLEAN AND AESTHETICALLY PLEASING CONDITION WHEN FINISHED.

CONSTRUCTION JOINTS

ALL CONCRETE SIDEWALKS SHALL HAVE A CONTRACTION JOINT PLACED AT INTERVALS NO GREATER THAN 5'. PARKING LOT CONTRACTION JOINTS ARE TO MEET ACI 318 STANDARDS. JOINT DEPTH TO BE $\frac{1}{4}$ THE THICKNESS OF THE CONCRETE. TO BE DONE WITHIN 24 HOURS OF POUR. SIDEWALK SHALL TERMINATE AT THE BUILDING OR ADJACENT CONCRETE WITH 1' EXPANSION JOINT.

CURING COMPOUND

CONTRACTOR IS TO CURE CONCRETE IN A MANNER ACCEPTABLE TO THE PROJECT ENGINEER. A VOC BASED CURING COMPOUND APPLIED DIRECTLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINISH AND OR COVERING WITH AN EVAPORATION RESISTANT COVERING (FOR A THREE DAY MINIMUM CURE TIME) WILL BE CONSIDERED ACCEPTABLE CURING MEANS.

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